

# SOFTWARE DEVELOPMENT

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## Release Notes AML/S SCSI SW 2.00

Release date: 05/20/99

ECN 3617

## **AML/S SCSI Software Version 2.00**

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## 0. Prerequisite

The AML/S SCSI software version 2.00 requires AMU AMS version 2.40E or higher.

Hardware and Software requirements apply according to the AMU AMS 2.40E prerequisite requirements.

## 1. AML/S SCSI Software Version 2.00

#### 1.1. General Information

The AMU AML/S SCSI Software version 2.00 provides fixes for the AMLS.SYS SCSI device driver to support AMU's request for robot version and increased the SCSI timeout value to 10 minutes instead of 5 minutes. The SCSIUtil program has not been modified.

#### 1.2. Description of New Features and Changes

The AML/S SCSI software version 200 has the following changes and/or features:

- Modified SCSI driver command timeout from 5 to 10 minutes.
- Added AMU robot status command support to return Scalar 1000 firmware version.

## 2. AML/S SCSI Software Version 1.10

#### 2.1. General Information

The AMU AML/S SCSI Software version 1.10 provides fixes for the AMLS.SYS SCSI device driver to support up to 48 drives with an AML/S. The SCSIUTIL utility program has not been modified.

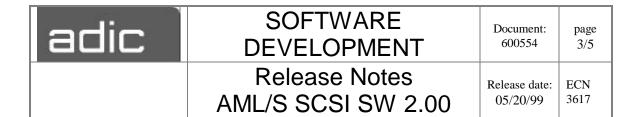
If an AML/S is configured with more than 14 drives, AMU AMS version 2.40E or higher must be installed and hardware and software requirements apply according to AMU AMS 2.40E prerequisite requirements.

## 2.2. Description of New Features and Changes

The AML/S SCSI software version 1.10 has the following changes and/or features:

- Added SCSI driver support for up to 48 drives.
- Added support for AML/S AIT capacities.

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## 3. AML/S SCSI Software Version 1.02

#### 3.1. General Information

The AMU AML/S SCSI Software version 1.02 provides fixes for the SCSIUtil.exe program. The AMU SCSI device driver has not been modified.

#### 3.2. Description of New Features and Changes

The AML/S SCSI software version 1.02 has the following changes and/or features:

- Corrected option display for Initialize Element Status with Range
- Support for Inquiry Unit Serial Number Page
- Corrected support for Send Diagnostic test pages
- Added support for retrieval of Mode Sense Mixed Media Page

## 4. AML/S SCSI Software Version 1.01

#### 4.1. General Information

The AMU AML/S SCSI Software version 1.01 provides support for new AML/S microcode level 1.00 and higher. It also addressed requests for additional features.

## 4.2. Description of New Features and Changes

The AML/S SCSI software version 1.01 has the following changes and/or features:

AMLS.SYS Support for SCSIUtil Send Diagnostic command

• SCSIUtil.EXE Support of up to 48 drives

SCSIUTIL.DLL Correction of Service telephone number in ABOUT screen
 TRCOPEN.EXE Display utility return codes to determine successful operation
 Display utility return codes to determine successful operation

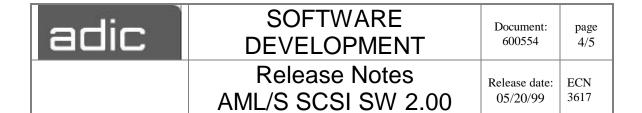
## 5. AML/S SCSI Software Version 1.00

#### 5.1. General Information:

The AML/S SCSI software version 1.00 provides an interface for the AMU AMS to the SCSI attached AML/S. Two new AMU AMS dynamic link libraries, *KRNSCSI.DLL* and *KRNSetS.DLL*, indicate the communication path to the AMU kernel. The kernel then directs all commands via the *KRNSCSI.DLL* to the SCSI device driver, *AMLS.SYS*, to issue commands to the AML/S medium changer.

The SCSI software provides several programs, however, during normal AMU AMS operation, only the *AMLS.SYS* SCSI device driver is active. Supplied trace utilities may be invoked if required. The SCSI Diagnostic Utility program is a diagnostic tool to test AMU to AML/S SCSI operation. It should not be activated while the AMU AMS kernel program is active. The diagnostic utility program has on-line contextual and general help for all command operations.

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## 5.2. Description of New Features and Changes

The AML/S SCSI software version 1.00 is a new release to support the AML/S. The following software programs and components are available on diskette:

• AMLS.SYS SCSI device driver for OS/2

SCSIUtil.EXE SCSI Diagnostic Utility to test AMU SCSI communication

SCSIUTIL.DLL SCSI Diagnostic Utility resource file
 SCSIUTIL.HLP SCSI Diagnostic Utility help file

TRCOPEN.EXE SCSI trace utility to collect SCSI driver trace
 TRCCLOSE.EXE SCSI Trace utility to dump trace to SCSI.TRC

## 6. Installation of SCSI Software

The installation (copying of all files to the AMU hard disk's  $C:\AMU\setminus SCSI$  directory) is performed either automatically with the AMU AMS installation program, or may be performed manually, by copying the  $A:\*$ .\* files from diskette to the  $C:\AMU\setminus SCSI$  directory.

An automatic installation modifies the *CONFIG.SYS* to add the statement *DEVICE=C:\AMU\SCSI\AMLS.SYS* and adds the OS/2 Base Device Driver entries *BASEDEV=OS2SCSI.DMD*, and *BASEDEV=AIC7870.ADD*, if not already present. Manual installations require manual updates of the *CONFIG.SYS*.

**NOTE:** Once the AML.SYS SCSI device driver is copied, the AMU controller needs to be rebooted in order to load the device driver into RAM.

**NOTE:** AML/S microcode should be copied to the  $C:\AMU\SCSI$  directory to allow microcode download operations by the SCSIUtil.EXE. If AML/S log and trace is uploaded, it will be stored in \*.DMP files in the  $C:\AMU\SCSI$  directory.

## 7. Problem Fixes:

## 7.1. Addressed Problem Logs SCSI 2.00

AMLS.SYS: PTS 939: SCSI driver requires higher command timeout value.
 AMLS.SYS: PTS 940: SCSI driver requires support for robot version command.

## 7.2. Addressed Problem Logs SCSI 1.10

• AMLS.SYS: PTS 549: SCSI driver requires support for up to 48 drives.

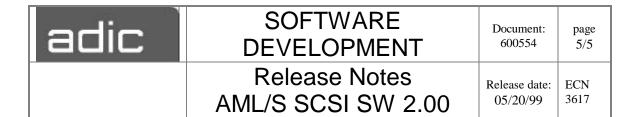
AMLS.SYS: PTS 550: SCSI driver requires support for AML/S AIT capacities.

## 7.3. Addressed Problem Logs SCSI 1.02

• SCSIUtil: PTS 474: Inquiry command correction

SCSIUtil: PTS 475: Log Sense Supported Media Page added
 SCSIUtil: PTS 476: Mode Sense Mixed Media Page added
 SCSIUtil: PTS 478: Send Diagnostic Test Pages corrected

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## 7.4. Addressed Problem Logs SCSI 1.01

SCSIUtil: ABOUT screen now displays correct ETAC telephone number
 SCSIUtil: Send Diagnostic command may now be issued to the AML/S
 SCSIUtil: Send Volume Tag command may now be issued to the AML/S

SCSIUtil: Download Mirocode command will not issue Test Unit Ready commands
prior to a download operation any longer to allow download of microcode even
if the AML/S does not report ready

AMLS.SYS: Send Diagnostic Self test command will no longer cause an OS/2 Trap

## 7.5. Addressed Problem Logs SCSI 1.00

N/A

## 8. Known Bugs and Work Arounds (WAs)

• The AMU Kernel issues status requests to the AML/S to detect on boot up when the AML/S becomes ready. Once ready, the AML/S database will be uploaded. If the database is being uploaded while being created or updated, problems may occur.

WA: Leave AML/S powered off, or off-line, when configuring the AMU controller.

• When using SCSIUtil.EXE to download AML/S microcode, the AML/S does not respond properly on the SCSI BUS and the AMU SCSI adapter may report an adapter hardware failure.

WA: Once the download completes and the AML/S reboots, shutdown the AMU and reboot.

• When updating microcode to the AML/S, the AML/S SCSI ID will now default to ID 6. If the AMU previously recognized the AML/S with a different SCSI ID, the AMU SCSI adapter will detect an error and commands can no longer be issued. (Make sure the AML/S SCSI ID will not conflict with the AMU hard disk SCSI ID.)

WA: Reboot AMU controller to have new ID recognized.

 When updating microcode to the AML/S, the AML/S may reboot automatically and leave the SCSI bus in an unexpected state. The AMU SCSI controller will detect such error and commands to the AML/S will be rejected with an "adapter hardware error".

WA: Reboot AMU controller.

The AMU controller hangs or does not recognize the AML/S if the AML/S is turned off.

WA: In order for the AMU to recognize the AML/S on boot up, the AML/S needs to be powered up, but not necessarily be on-line and ready. If the AML/S needs to be powered off, the AMU

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must issue a HOME command to stop polling of the AML/S SCSI bus, as the AMU controller may otherwise hang, since the SCSI Test Unit Ready command (sent every 7.5 seconds to the AML/S) will cause OS/2 to hang. Communication to the AML/S is established automatically

on

AMU AMS boot, or may also be started with the STAT R1 (STAT R2) command.

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